

What is claimed is:

1. A cleaning system for cleaning semiconductor process equipment contaminated with a reaction product, the system comprising:
  - a. a component of the semiconductor process equipment, the component having a component channel contaminated with the reaction-product;
  - b. a steam source adapted to provide steam via a steam-source outlet, wherein the steam pressure is at least one atmosphere; and
  - c. a cleaning fixture having a steam input connected to the steam-source outlet and a steam output adapted to interface with the component channel;
  - d. wherein the steam source forces steam through the steam-source outlet, the cleaning fixture, and the component channel.
2. The system of claim 1, wherein the reaction product includes aluminum and a halogen.
3. The system of claim 1, wherein the component is a gas-diffusion plate.
4. The system of claim 1, wherein the steam pressure is greater than 1000 psig.
5. The system of claim 1, wherein the steam temperature is above 250 degrees Fahrenheit.
6. The system of claim 1, further comprising a bath of

liquid, wherein at least a portion of the component is immersed in the liquid.

7. The system of claim 6, wherein the liquid is de-ionized water.
8. The system of claim 6, wherein the liquid comprises water and hydrogen peroxide.
9. The system of claim 6, wherein the component channel has a channel input adapted to receive the steam and a channel output adapted to expel the steam, and wherein the channel output is immersed in the liquid.
10. The system of claim 1, wherein the steam comprises an oxidizing agent.
11. The system of claim 11, wherein the agent includes hydrogen.
12. The system of claim 1, wherein the steam includes a reducing agent.
13. A cleaning system for removing a contaminant compound of a halogen and aluminum from semiconductor process equipment, the system comprising:
  - a. a steam source adapted to provide steam via a steam-source outlet, wherein the steam pressure is at least one atmosphere; and
  - b. a steam fixture connected to the steam-source outlet and adapted to direct the steam at the

contaminant compound.

14. The system of claim 13, wherein the steam pressure is above 1000 psig.
15. The system of claim 13, wherein the steam temperature is above 212 degrees Fahrenheit.
16. The system of claim 13, wherein the semiconductor process equipment includes a component having a component channel contaminated with the contaminant compound, wherein the steam fixtures is adapted to direct steam from the steam-source outlet through the component channel.
17. The system of claim 16, further comprising a gasket arranged between the fixture and the component.
18. The system of claim 13, wherein the steam comprises at least one of an oxidizing agent and a reducing agent.
19. A method for removing reaction products from semiconductor process equipment, the method comprising forcing steam through holes in the semiconductor process equipment.
20. The method of claim 19, wherein the reaction product includes aluminum and a halogen.
21. The method of claim 20, wherein the halogen is fluorine.

22. The method of claim 19, wherein the steam pressure is above one atmosphere.
23. The method of claim 19, wherein the steam temperature is above 212 degrees Fahrenheit.
24. The method of claim 19, wherein the equipment comprises a gas diffusion plate perforated with the holes.
25. The method of claim 19, further comprising soaking the equipment prior to forcing the steam through the holes.
26. The method of claim 25, wherein equipment is soaked in water.
27. The method of claim 26, wherein the water is above 180 degrees Fahrenheit.
28. The method of claim 25, wherein the water equipment is soaked at a pressure greater than one atmosphere.
29. The semiconductor process equipment of claim 19 cleaned using the method for removing reaction products.
30. A cleaning system for cleaning semiconductor process equipment contaminated with a reaction product, the system comprising:

- a. a component of the semiconductor process equipment, the component having a component channel contaminated with the reaction-product;
  - b. a steam source adapted to provide steam via a steam-source outlet, wherein the steam pressure is at least one atmosphere; and
  - c. means for forcing the steam from the steam-source outlet through the component channel.
31. The system of claim 30, wherein the reaction product comprises aluminum and a halogen.
32. The system of claim 30, further comprising a water bath, wherein at least a portion of the component is immersed in the water.
33. The system of claim 30, wherein the reaction product includes a halogen.